

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference P1780R1	FOR FURTHER ACTION see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.	
International application No. PCT/US 01/ 08928	International filing date (day/month/year) 20/03/2001	(Earliest) Priority Date (day/month/year) 11/04/2000
Applicant GENENTECH, INC.		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 9 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

- a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

- b. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international search was carried out on the basis of the sequence listing :

☐ contained in the international application in written form.

☐ filed together with the international application in computer readable form.

☒ furnished subsequently to this Authority in written form.

☒ furnished subsequently to this Authority in computer readable form.

☒ the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.

☒ the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished

2. ☒ **Certain claims were found unsearchable** (See Box I).

3. ☒ **Unity of invention is lacking** (see Box II).

4. With regard to the **title**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the **drawings** to be published with the abstract is Figure No.

☒ as suggested by the applicant.

☐ because the applicant failed to suggest a figure.

☐ because this figure better characterizes the invention.

4B

☐ None of the figures.

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C12N15/62 C12N15/13 C12N5/10 C07K16/00 C07K16/32
 C07K16/28 A61K47/48 A61K51/10 C07K16/30 A61K39/395
 C07K19/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C07K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ, WPI Data, BIOSIS, SEQUENCE SEARCH

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 824 311 A (GREENE MARK I ET AL) 20 October 1998 (1998-10-20) page 3, line 65 -page 5, line 38 column 12, line 41 - line 59 ---	43-49, 56,92,93
X	WO 91 05264 A (ONCOGENETICS PARTNERS) 18 April 1991 (1991-04-18) page 9, line 20 -page 10, line 35 page 21, line 5-27 --- -/--	43-49, 56,92,93



Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

* Special categories of cited documents:

A document defining the general state of the art which is not considered to be of particular relevance

E earlier document but published on or after the international filing date

L document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

O document referring to an oral disclosure, use, exhibition or other means

P document published prior to the international filing date but later than the priority date claimed

T later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

X document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

Y document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

& document member of the same patent family

Date of the actual completion of the international search

12 September 2001

Date of mailing of the international search report

27/09/2001

Name and mailing address of the ISA

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	YONEHARA S ET AL: "Involvement of apoptosis antigen Fas in clonal deletion of human thymocytes" INTERNATIONAL IMMUNOLOGY, OXFORD UNIVERSITY PRESS, GB, vol. 6, no. 12, 1 December 1994 (1994-12-01), pages 1849-1856, XP000616653 ISSN: 0953-8178 abstract page 1850, column 2, paragraphs 2,3 ---	33-42,90
X	DATABASE BIOSIS 'Online! BIOSCIENCES INFORMATION SERVICE, PHILADELPHIA, PA, US; 1995 HANASAKI KOHJI ET AL: "Binding of human plasma sialoglycoproteins by the B cell-specific lectin CD22: Selective recognition of immunoglobulin M and haptoglobin." Database accession no. PREV199598267581 XP002177287 abstract & JOURNAL OF BIOLOGICAL CHEMISTRY, vol. 270, no. 13, 1995, pages 7543-7550, ISSN: 0021-9258 ---	50-55,91
X	WO 98 43089 A (SQUIBB BRISTOL MYERS CO) 1 October 1998 (1998-10-01) table 1 ---	50-55,91
X	WO 99 60846 A (DEPLA ERIK ;INNOGENETICS NV (BE); DEPRAETERE STANY (BE); LEROUX RO) 2 December 1999 (1999-12-02) example 6 ---	50-55,91
X	WO 99 37791 A (VLAAMS INTERUNIV INST BIOTECH ;MERTENS NICO (BE); SCHOONJANS REINH) 29 July 1999 (1999-07-29) abstract page 1, line 1 -page 3, line 7 page 7, line 4 -page 8, line 21 page 28, line 1 -page 46, line 5; claims 1-22 ---	57-65, 73,74,79
X	EP 0 517 024 A (BEHRINGWERKE AG) 9 December 1992 (1992-12-09) claims 1-9 --- -/--	57-65,79

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	<p>HOOGENBOOM H: "Mix and match: Building manifold binding sites" NATURE BIOTECHNOLOGY, NATURE PUBLISHING, US, vol. 15, no. 2, 1 February 1997 (1997-02-01), pages 125-126, XP002084229 ISSN: 1087-0156 the whole document</p> <p>---</p>	<p>1-32, 66-72, 75-78, 80,87-89</p>
Y	<p>WO 99 23221 A (HOWELL STEVEN ;UNILEVER PLC (GB); LEDEBOER ADRIANUS MARINUS (NL);) 14 May 1999 (1999-05-14)</p> <p>page 5, line 25 -page 7, line 5; claims 1-16</p> <p>---</p>	<p>1-32, 66-72, 75-78, 80,87-89</p>
Y	<p>PLUCKTHUN A ET AL: "New protein engineering approaches to multivalent and bispecific antibody fragments" IMMUNOTECHNOLOGY, ELSEVIER SCIENCE PUBLISHERS BV, NL, vol. 3, no. 2, 1 June 1997 (1997-06-01), pages 83-105, XP004088466 ISSN: 1380-2933 abstract page 95, column 2, paragraph 2 -page 96, column 1, paragraph 3; figures 1,3; table 1</p> <p>---</p>	<p>1-32, 66-72, 75-78, 80,87-89</p>
X,P	<p>US 6 066 719 A (ZAPATA GERARDO A) 23 May 2000 (2000-05-23) figure 5</p> <p>-----</p>	<p>57,79</p>